2. I submit this affidavit to discuss the application of SBC Communications Inc., Southwestern Bell Telephone Company and Southwestern Bell Communications Services, Inc. (collectively "Southwestern Bell") to provide in-region, inter-LATA services in Oklahoma. In principle, I am a strong supporter of elimination of impediments to entry of any enterprise into any market. Southwestern Bell's application therefore deserves careful consideration.

3. The central purpose of this testimony is to offer such an examination by discussing appropriate and inappropriate means for the encouragement of further competition in interexchange telecommunications, and the pertinence of these considerations to the terms of the Telecommunications Act of 1996 that restricts the arenas of activity of Southwestern Bell and other Bell Operating Companies ("BOCs").

I. INTRODUCTION

A. THE BASIC ISSUE

4. Southwestern Bell has applied to the Commission for permission to provide interexchange service under Section 271 of the Telecommunications Act. Southwestern Bell, along with the other BOCs, as the monopoly providers of local exchange service throughout most of the country, have previously been foreclosed from providing most interexchange service by the terms of the Modification of Final Judgment ("MFJ") under which the BOCs were divested from AT&T. Southwestern Bell now contends that

permission for it to embark on interexchange service will enhance the competitiveness of all of telecommunications and will serve to weaken the market power that it claims is now exercised by the three largest long distance carriers.

5. In enacting the Telecommunications Act of 1996, Congress stated that its purpose was "to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." To achieve these clearly laudable goals, the Act uses a two-pronged approach. First, the Act has a number of provisions designed to stimulate the birth and growth of competition in local exchange markets. Second, the Act provides that after several criteria related to the competitiveness of local exchange markets have been met, the BOCs may enter interexchange markets.

6. One of these criteria is that such entry "is consistent with the public interest . . . ." As the many economists who have submitted statements on behalf of Southwestern Bell have acknowledged, the public interest requires the Commission to determine whether granting Southwestern Bell's application will enhance or harm competition. This issue, in turn, requires the Commission to examine whether local exchange markets in Oklahoma are sufficiently competitive to act as an effective constraint on anticompetitive conduct that would be possible if the restrictions originally imposed under the MFJ were removed.

7. Southwestern Bell has filed in support of its position the submissions of several economists of undoubted ability and integrity. Nevertheless, it seems clear that even a brief but careful review of the pertinent facts will convince dispassionate observers that the permission Southwestern Bell seeks is entirely premature. If the Telecommunications Act works as designed, there should come a time when the public interest will make Southwestern Bell's entry into interexchange service appropriate. There is even reason to hope that the time for this will not be long in coming. However, it is also possible that there may be a very considerable delay before Southwestern Bell can safely be permitted full-scale entry into interexchange service. The point is that currently in Oklahoma, competition for the delivery of telecommunications service to households and business firms, that is, local exchange service, can barely even be described as de minimis, much less effective. The record before the Commission makes it safe to say that more than 99 percent of Southwestern Bell's subscribers in Oklahoma remain without recourse to other local exchange carriers. In such circumstances, one can hardly treat as a serious assertion the claim that the local exchange has now become sufficiently competitive so that the concerns about anticompetitive conduct (concerns underlying the original imposition of the MFJ restrictions) have evaporated.

8. I do not differ an iota from any of my colleagues who have prepared testimony on behalf of Southwestern Bell in this matter on the desirability of increased competition in any part of telecommunications activity, both in the local arena and in inter-

exchange service. Any new firm that does not possess any bottleneck facilities essential for the activities of the other firms in the interexchange arena may well serve the public interest if it enters interexchange service provision and is successful in this venture. As I will show here, however, entry into interexchange service by a firm that does possess a critical bottleneck, while it will undoubtedly offer the appearance of enhancing competition in that segment of communications, may well actually handicap it severely and can conceivably even cripple it.

B. LOCAL BOTTLENECKS AS A THREAT TO INTEREXCHANGE COMPETITION

9. The problem at issue here arises whenever a proprietor of a bottleneck facility that is an essential input into a final product enters into competition for supply of the final product itself. In the present circumstances, the final product is interexchange telecommunications, and the bottleneck input is, of course, access to local exchange facilities. Any interexchange carrier must purchase access from the local exchange carrier in order to sell its services to subscribers and other users. However, if the local exchange carrier enters into competition in the provision of final product, interexchange service, then it, too, must use access to local exchange facilities in order to supply its services to consumers.

10. The price and other terms on which the BOC supplies access to itself and to the other carriers can, obviously, have a profound effect on competition. For

example, if bottleneck services were supplied to competitors at a price substantially lower than the owner of the bottleneck implicitly charges itself (as occurred in some arenas such as railroading, where such prices were imposed by traditional regulatory practice) then the owner of the bottleneck clearly would be placed at a marked competitive disadvantage relative to its rivals who purchase the same bottleneck services. In contrast, where the owner of the bottleneck is unconstrained in the pricing of its bottleneck services, there is the marked danger that it will sell them to its rivals on considerably less advantageous terms than it does to itself. If this occurs, obviously the entry of the bottleneck owner into the competitive final product market, rather than enhancing competition, can handicap it seriously and even destroy it. This is one of the key reasons that the MFJ broke up the Bell System and insisted that the bottleneck facilities go to firms entirely separated from the (then prospectively, now actually) competitive interexchange market.

11. Not only is there the very real peril that a BOC freed to enter the interexchange market will sell access service at prices to competitors higher than those it implicitly charges itself; there is also a heightened danger that access for some services will be priced (as a result of cost misallocations between competitive and noncompetitive services) so as to yield a substantial monopoly profit to the LEC, both on the access it provides to interexchange carriers, and on the access service it uses for itself. It can even use such monopoly profits to provide cross subsidies to some of its other products if that should offer a strategic advantage to the BOC.

12. This is not just a conventional problem of cross subsidies, whose significance and character is widely recognized. Rather, the problem stems from the fact that when a BOC supplies toll service, as it now does in intraLATA areas, it is, in effect, forced to acquire access just as any other toll service supplier must do. However, this means that the BOC, unlike the interexchange carrier, must purchase access from itself. That, in turn, entails two problems from the point of view of protection of the public interest.

13. First, while the toll service competitor of the BOC pays a directly observable price for the access -- a price whose magnitude is visible to all -- in contrast, the price that the BOC implicitly charges itself for access can be calculated only indirectly, on the basis of very sophisticated concepts, if it is to be calculated correctly. The Telecommunications Act requirement that the BOC impute to itself the same cost of access as it charges to its interexchange competitors, while eliminating one very obvious form of discrimination, does not remedy the underlying problem. The point is that the transfer price recorded on the affiliated enterprises' books -- whether it is equal to or different from the access charge imposed on interexchange competitors -- is irrelevant because the transfer of money from one pocket of the overall business to the other pocket is irrelevant. The relevant price, of course, is composed of the incremental cost of access plus the imputed profits, neither of which can be obtained directly from the corporation's books.

14. This difficulty must be faced up to, for failure to do so means that the BOC may be supplying access to itself at a price considerably lower or considerably higher

than that at which it supplies access to the interexchange carriers. With access so important a component of the cost of supplying toll, it is clear that if either an IXC or the BOC ends up paying a materially higher price for access than the other does, it will be placed under a severe handicap in competition for toll business. In terms of the overused cliché, the playing field will be tilted severely, and the public welfare will be damaged because the traffic will not necessarily go to the firm that can supply it most cheaply and efficiently, but rather to the firm that can get away with the lower access price. (As described in Section III.A. below, this technique is often referred to as a "vertical price squeeze.")

15. That gives rise to the second of the problems that were just referred to. Clearly, with pricing of access in the hands of the BOC it is hardly to be expected that it will be the IXCs who receive the lower toll price. The danger is that with the price of access of the BOC to itself not easily observable, it will not resist the clear temptation to tilt the toll playing field in its own favor, thereby undermining competition (and not just particular competitors) in the arena.

16. Moreover, even if the price of access to the BOC and to the IXCs is the same, it may well be set far too high -- high enough to extract monopoly profits for the BOC, both from the IXCs and from the BOC's own toll customers. This is a very real problem because the BOCs are monopolistic suppliers of access. The double issue is how one should go about to ensure that the BOCs can be prevented from charging the IXCs more for access than they charge themselves, and how they can be prevented from incorporating

monopoly profits into both those charges. Without such guarantees, it is clear that the public interest will be sacrificed by elimination of current restrictions.

17. Yet, it is noteworthy that in the overwhelming mass of material that Southwestern Bell has submitted in its petition, the crucial problems that have just been described, are, so far as I have been able to find, referred to, at most, obliquely. So long as effective competition in the local loop remains a distant promise, so that -- as is the case today -- the IXCs have no place else to turn for the essential access services, the problem will not vanish of its own accord, any more than it could have been expected to do when the MFJ was first formulated, and when the BOCs were divorced from AT&T to avoid just this sort of threat to competitiveness.

C. BUT WHERE IS THE MONOPOLY POWER REALLY LOCATED?

18. The notion apparently entertained by Southwestern Bell that such danger to competition of discriminatory provision of the bottleneck services merits little discussion is mind boggling enough. However, Southwestern Bell goes one step further and takes a position that strains credence even more. It argues that not only is the local exchange a competitive arena today, but that, in fact, it is the interexchange market that is really uncompetitive. In effect, this would seem to imply that it is the interexchange carriers who are in a position to exploit the BOCs rather than the reverse. Southwestern Bell goes to great lengths to argue both -- the competitiveness of the local exchange and the lack of

competition in interexchange service. But when these two propositions are placed side by side their absurdity must be manifest to the most casual observer.

19. Of course, no one can pretend that interexchange competition encompasses anywhere near as many rivals as the market for soy beans. Interexchange service is supplied by three large carriers, by over a half dozen others who provide service that is virtually national, and by hundreds of smaller carriers. It is substantially constrained, though not perfectly, in its pricing and other respects by the extreme ease of entry into reselling. It is true that in their base prices the major suppliers tend to stay abreast of one another. Surely, effective competition offers them no other option. But one need only turn on one's television set on any evening to watch MCI make unkind remarks about AT&T or to see the favor returned. Moreover, this extremely rivalrous advertising is focussed on prices and discounts, with each firm, and Sprint as well, energetically striving to attract household subscribers. In dealing with business firms, rivalry is undoubtedly even more severe, with carriers vying to offer attractive special contracts to prospective customers.

20. In contrast, has anyone ever seen a television advertisement of two rivals in combat for household users of the local loop? To what competitor can any of us turn if we are unhappy with the monopoly service supplied by our friendly BOC? It is true that BOCs do now face some competition for some of the traffic of the largest business firms and government agencies. However, the notion that the local loop's state of competitiveness can even be compared remotely with that in interexchange services is so absurd on its face,

that mere recapitulation of the argument should suffice to dispose of it. Reality stood on its head is in this case, fortunately, all too easy to recognize.

D. THE BOTTOM LINE

21. The inescapable conclusion from all this is that Southwestern Bell's petition is at best highly premature. It is difficult to deny that enhanced competition in any telecommunications arena, or in any other economic area for that matter, will benefit consumers. This is true of the interexchange arena and even considerably more so in local services. While entry usually makes an economic sector more competitive, there are notable exceptions. The entry into a market by the monopolistic proprietor of an input indispensable to all suppliers in that market, rather than enhancing competition, can serve to undermine it. The introduction of a wolf into a chicken coop can hardly be counted on to increase the population of the coop.

22. The pretense that effective competition has come to the local arena does not make it so. There can be little doubt that the services of the local exchange continue to be supplied on what are essentially monopoly terms to the vast preponderance of users of telecommunications services. Some day, perhaps even soon, under the Telecommunications Act of 1996 and subsequent FCC orders, that monopoly may come to an end. Until it does, there is no more reason to eliminate the structural separation between interexchange markets

and clearly non-competitive local exchange markets than there was a decade ago. The issue is no more complex than that.

II. ON THE STATE OF COMPETITION IN THE LOCAL EXCHANGE

A. THE LIMITS OF COMPETITION TODAY

23. Southwestern Bell and those writing in support of its plan do provide evidence showing that competition has begun to make its appearance in local exchange markets, and that there may well be prospects for growth in the strength of such competition. There is no doubt that technological progress has introduced prospects for competition that could hardly have been foreseen a dozen years ago. Yet, while Southwestern Bell's filing does provide evidence that some degree of competition has made its appearance in the provision of exchange access services, it fails to acknowledge that this competition is in its infancy and can hardly be deemed up to now to have shorn the local exchange carrier of effective market power. What is now nascent competition may well develop into effective access competition. Nevertheless, it cannot be maintained with any degree of plausibility that this state of affairs has already been achieved, and that competition has deprived Southwestern Bell of the power to exploit its bottleneck facilities to the disadvantage of prospective rivals in the interLATA market. Moreover, Southwestern Bell's filing does not even suggest a standard that could be used to determine whether competition in the local

service arena has grown sufficiently powerful to eliminate the legitimate concerns raised by Southwestern Bell's entry into interLATA markets.

24. The basic difficulty, of course, is that successful operation in the interLATA arena requires the firm supplying those services to reach the individual telecommunications customers, and that, with some very limited exceptions, this still can be done only through use of facilities provided exclusively by Southwestern Bell. Whatever the competition that is available today, it serves almost entirely to protect some of the pertinent and legitimate interests of large business customers and large business users. It does virtually nothing to offer similar protection to smaller business and household users whose interests should be a prime concern of regulation. And failure to offer competitive protection to smaller business and household users of local telecommunications services also leaves vulnerable the large business customers, many of whose messages ultimately have smaller businesses or households as their target.

25. Similar observations apply to access. If and when the access services can be supplied by a number of rival carriers, each in a position to offer such services to any interexchange carrier in whatever quantity and quality the latter desires, and to offer the services in competition with Southwestern Bell, then Southwestern Bell will clearly have been deprived of its bottleneck and there will be no legitimate reason to prevent its entry into the provision of interLATA services. However, it is obvious that such a state of affairs is still far from reality.

26. It is yet possible, despite protestation to the contrary by some witnesses for Southwestern Bell, that many of the still-noncompetitive services will prove to be natural monopolies so that substantial competition in their supply will never materialize. Moreover, potential competition, the instrument of contestability of a market, is likely to be impeded in such an arena by the need for any entrant to incur substantial sunk investments before it can hope to compete effectively, the continued dependence of entrants on Southwestern Bell for the use of unbundled network elements and services resale, as well by persistent regulatory barriers. All of this reinforces the conclusion that the time for entry by Southwestern Bell into interexchange services has not yet come, and that the public interest requires public authorities to proceed with extreme caution in this direction.

B. THE CONTESTABILITY CLAIM

27. Some witnesses for Southwestern Bell seem to suggest that local exchange markets are now contestable, a market condition that offers public interest benefits virtually the same as those ensured by powerful competitive forces. That conclusion is not supported by the facts, which suggest that entry into many of the local exchange activities will hardly be quick and easy, as contestability requires.

28. This result follows from the very requirements of contestability. A CONTESTABLE MARKET is defined as one in which barriers to entry, both natural and artificial, are for all practical purposes absent or minimal. When a market is perfectly

contestable (a situation that is, of course, never more than approximated in reality) no participant in that market can retain any vestige of monopoly power. It cannot expect to earn profits higher than those currently obtained in competitive industries because any such excess profits will attract entrants into the contestable market -- entrants who offer lower prices and can thereby take customers away from the expensive products of the incumbent seller. The incumbent can even be prevented from recouping its lost business if the lower-priced entrants negotiate longer-term contracts with their new customers.

29. Perfect contestability precludes not only excessive prices and excessive profits; it also drives out firms that are inefficient by permitting entrants to undercut them. In addition, contestability rules out cross-subsidy and predation because it prevents the excessive profits that are the ultimate objective of either of these types of activity.

30. Contestability, as just noted, requires the absence or virtual elimination of all artificial and natural barriers to entry. The term ARTIFICIAL BARRIER refers to impediments to entry imposed by the deliberate actions of government agencies, firms in the market or others. A franchise restriction upon operation in some market is a clear example of a substantial barrier to entry that by itself is sufficient to prevent a market from being anything near to contestable. Procedures adopted by a firm that possesses a bottleneck facility and that overtly or subtly handicap an entrant hoping to make use of that facility are another obvious illustration. Artificial or needless restrictions on the use of unbundled network elements would be an example of such a barrier to entry into the local exchange market.

31. In addition, a NATURAL BARRIER to entry is one that is imposed not by deliberate human action, but by circumstances out of the hands of decision makers. They can be a consequence of the nature of the technology of the industry, of the character of the pertinent market, and other circumstances. The clearest example of such a barrier that is cited in virtually all discussions of contestable markets is the need for an entrant to incur a relatively large sunk investment before it can begin to operate. If an entrant must build a costly plant, sink considerable amounts of money into advertising, or incur other types of outlay which it cannot hope to recoup for some lengthy period, then entry entails a very considerable risk that those sunk outlays will never be returned. In markets where such sunk costs are minimal, entry can indeed be quick and easy, and entrants can try their luck with little fear of disastrous consequences because their entry puts so little at risk. But markets where entry requires large sunk outlays are generally recognized to be far from contestable.

32. For these reasons, it is clear that the exchange operations of the BOCs are not contestable markets. They are beset by regulatory and other restrictions upon entry. Not only is entry into exchange activities impeded by existing franchise and "first in field" barriers to entry, it characteristically requires heavy sunk investments, notably into the local loop facilities. While the latter category of entry barriers is reduced, to a degree, by the Telecommunications Act requirement that BOCs sell unbundled network elements ("UNEs"), UNE-based entrants must still sink some costs before serving customers. Moreover, UNE-based entrants still rely on the incumbent local exchange monopolist to provide essential

inputs. Such an incumbent often has both the means and incentives to discriminate against resellers and purchasers of UNEs.

C. MONOPOLY PRICING AS ENTRY INCENTIVE V. BARRIER-REDUCING RULES

33. I must deal also with the argument of Southwestern Bell witnesses which asserts that supra-competitive pricing of loops and other facilities can never long persist, because such prices will spur entry. It is true that excessive profits always make a field more attractive to prospective entrants; but so long as substantial barriers to entry remain, such prospects will continue to constitute little more than wishful thinking about contestability or the availability of effective competitive constraints upon the BOCs.

34. I have previously offered a set of regulatory rules or provisions that are necessary to reduce barriers to a minimum (Toward Competition in Local Telephony (pp. 121-123)). The premise of these proposed criteria is that, beyond the elimination of barriers, there must be some standard for determining when (or whether) new entrants or potential entrants into exchange operations are sufficiently powerful as a group to make all components of exchange operations either truly competitive or effectively contestable. Southwestern Bell simply asserts that the local exchange market is effectively competitive, a conclusion which, as demonstrated above, is clearly not yet valid.

35. I shall not undertake here to propose a set of standards for determining when effective exchange competition can be deemed to have eliminated Southwestern Bell's

market power in the local arena, but simply note two points: first, under any reasonable standard, the local exchange markets served by Southwestern Bell are not yet effectively competitive and, second, only satisfaction of reasonable criteria in this area will permit Southwestern Bell's entry into interLATA service without risking the impediments to competition the current restrictions were properly designed to preclude.

III. ON THE LIMITS OF REGULATION AS A SUBSTITUTE FOR CURRENT LIMITATIONS ON BOC ENTRY INTO LONG DISTANCE

A. INCENTIVES AND OPPORTUNITIES FOR DISCRIMINATION IN THE PROVISION OF ACCESS

36. The case is even weaker for Southwestern Bell's claim that, under current regulatory rules, it is deprived of all power and incentive for discrimination in the terms on which it provides access. Southwestern Bell supplements this claim with the standard argument asserting that vertical relationships entail no anticompetitive perils to the public interest. This section will deal briefly with the latter assertion and will then address itself to the former.

37. It is claimed that entry by a firm with a bottleneck facility into the supply of a final product that employs that facility as an input will normally not imperil competitiveness in the production of that final product (interLATA telecommunications service in the case at hand). The argument is that the holder of the bottleneck already possesses, as a result of its control of the bottleneck, all the market power it needs to extract

whatever monopoly profit the final product prospectively offers. By charging a sufficient fee for use of the bottleneck, its proprietor can extract whatever profits the traffic will bear, leaving nothing further to be obtained through entry into the vertically related field, the supply of the final product. Whatever the limitations of this theoretical argument, and it has indeed been questioned in the economic literature, it is certainly inapplicable to the current issue. The expectation of continued regulation of the local exchanges ensures that the holder of the bottleneck will not be able to extract all of the monopoly profit it could obtain from its final product if it were left free to adopt any prices it desired. That, after all, would be the fundamental purpose of continued regulation of the exchanges, even under a pure price cap scheme, and this fact underlies the logic of the divestiture of the bottleneck facilities under the MFJ.

38. The consequence is that the LECs' final product price will in practice leave uncollected potential monopoly profits. Consequently, there will normally be further profits to be earned through the LECs' entry into the supply of interLATA service on terms distorted by the pricing of access when provided to competitors. Moreover, because of economies of scale in the transmission process, it is well known that viable interLATA service prices must exceed incremental costs, and they will normally include a contribution to coverage of fixed and common costs. If discrimination in the provision of access will permit the BOC, after it has been given permission to supply interLATA service, to expand its market share in this arena and thereby to add to its contribution returns, it will have every

incentive to do so. Thus, in the circumstances under consideration, the notion that the bottleneck-owning firm has nothing to gain by discrimination in its supply of bottleneck services simply does not hold water. Once it is permitted to enter the vertically-related field into which it seeks to embark, it will continue to have a strong incentive to offer those facilities to its rivals on terms less favorable than it provides them to itself. There seems to be little reason to doubt this. The only real question is whether such discrimination will be within its power.

39. Southwestern Bell responds that future competition will preclude it. But here it is important to note once again that even Southwestern Bell's witnesses appear to shy away from the claim that such competition is already powerful enough to do the job fully and adequately.

40. Thus, while explaining that some competition is already on the scene, Southwestern Bell acknowledges that more competition is only an anticipation for the future. Moreover, Southwestern Bell offers no evidence on the power of that competition, and it admits that such competition is not yet widespread, and that it is not even certain to be in the future. Ultimately, Southwestern Bell turns to regulation as a necessary supplementary guarantee, thereby tacitly conceding that competition is currently insufficient to do the job, and that it may not be in the future.

41. There are numerous ways for BOCs to engage in price-discrimination against non-affiliated competitors, and to shift costs from competitive markets to their

regulated monopoly markets. In markets as complex and technologically dynamic as the interexchange and equipment manufacturing markets, opportunities for self-preference of this kind are numerous, hard-to-detect, and frequently hard to distinguish from legitimate competitive behavior. These techniques include:

a. Vertical price squeezes -- that is, raising the price of an essential facility (i.e., access to the local network) high enough in relation to the bundled price of local exchange and interexchange service so that the resulting margin is too small to cover the incremental costs of efficient competitors.

b. Mischaracterizing costs that are attributable to competitive services as jointly attributable to competitive and regulated services, thereby shifting a portion of the costs to purchasers of the regulated services. (I understand, for example, that several BOCs have allocated to ordinary telephone service the cost of fiber optic cable capacity whose installation was driven solely by a desire to compete in broad-band services.)

c. Charging excessive transfer prices for inputs purchased by the regulated entity from an unregulated affiliate, thereby raising the accounting costs of the regulated entity and obtaining a rise in the regulatory price ceilings.

d. Charging noncompensatory transfer prices for inputs sold by the regulated entity to an unregulated affiliate.

e. Transfer of physical, intangible or human capital (including brand identification, know-how, trained personnel, licenses, patents, and advance knowledge of infrastructure development plans) without compensation, or with inadequate compensation, from the regulated entity to the unregulated entity.

42. It is no answer to argue, as have several of Southwestern Bell's witnesses, that AT&T, MCI, and Sprint are large and sophisticated companies, eminently capable of detecting misconduct of this kind. Ability to sense the existence of cross-subsidies, cost shifting or degradation of service provides no solace to a competitor that cannot prove or stop the anticompetitive conduct. Suppliers of long-distance service have no ability to vote with their feet if Southwestern Bell gains a reputation for misconduct. They are utterly dependent on the BOCs to originate and terminate virtually all of their calls. Furthermore, the complexity and judgmental nature of the relevant costs -- and a BOC's control of its own cost records -- make regulatory relief time-consuming, costly and uncertain.

43. The vertical competitive issues raised by AT&T's recent acquisition of McCaw provide an instructive contrast. The analog for local exchange service in the

AT&T/McCaw context was the market for equipment used by providers of cellular service: AT&T sold the same kind of cellular equipment to independent cellular carriers that AT&T could provide to McCaw, their competitor. The critical difference was the competitiveness of the market for cellular equipment: if AT&T began to gain a reputation for discrimination, overpricing its cellular equipment, degrading equipment provided to rivals of McCaw, or attempting vertical price squeezes, independent cellular companies had the option of shifting to competing equipment suppliers. It is also unrealistic to expect that AT&T could have exploited an independent cellular carrier after it made a sunk investment in AT&T-specification equipment. If AT&T had been recognized to engage in this kind of ex post opportunism, it would quickly have been shunned by potential customers.

44. Even apart from concerns about discrimination in the pricing of access, serious concerns remain about the danger of discrimination in Southwestern Bell's provision of access services. Discriminatory delay in inauguration of requested service or in the quality of that service can be a substantial disadvantage to rivals, and can be carried out in ways that support at least plausible arguments of legitimacy, making regulatory protection or remedy far from certain. And with the technological complexities and dynamic changes that characterize the telecommunications industry, myriad and subtle possibilities for discriminatory treatment clearly exist.

45. Discriminatory provision of access can take numerous forms. These include outright denial of access; restrictive interconnection policies; provision of inferior or

less responsive service; manipulation of product or service specifications, predatory changes in network design, or failure to provide prompt notice of changed product or service specifications (all of which can give an affiliated supplier an insuperable head start over competing equipment vendors or service providers); prohibitions or restrictions against resale of services; and refusal to offer facilities for downstream services until the BOC is ready to offer its own, competing service.

46. Finally, Southwestern Bell, if allowed to integrate into interexchange service or manufacturing, could appropriate information about the regulated affiliate's customers, at the expense of competing vendors of interexchange service or equipment.

47. True, full and effective competition would eliminate the attendant dangers, but, as we have seen, such competition is not yet here, and we cannot be sure when, if ever, it will arrive for some critical components of local exchange service.

B. THE LIMITED EFFECTIVENESS OF PRICE CAP REGULATION TO CHANGE THE RBOCs' INCENTIVES

48. Southwestern Bell argues that any opportunities for cross-subsidy have been eliminated by adoption of price cap regulation by the FCC as a substitute for rate-base, rate of return regulation. Once again, there is some basis for this position. Rate-base rate of return regulation is a standing invitation to the regulated firm to undertake cross-subsidy from products sold in markets relatively immune from competition to other company products subject to stronger competitive pressures. It can do so by manipulation of those

costs that arise from the supply of products of both types, seeking to misattribute costs actually entailed in the supply of the competitive products to those products in which the firm enjoys market power. The apparent costs of the latter having been increased, the regulated firm can expect to have the price ceiling on those products raised correspondingly, thereby gaining a competitive advantage in its more competitive markets at no cost to itself in terms of profits foregone. Price cap regulation is designed to eliminate this prime avenue for cross-subsidy by the regulated firm. It does so by making price ceilings dependent on developments beyond the control of the firm -- on data such as the consumer price index, or the historical rate of productivity growth -- so that anything the regulated firm does to manipulate its cost accounting procedures leaves the regulatory ceilings unaffected.

49. This is all very true in principle, and is true to a degree in practice. In reality, there is good reason to believe that price cap regulation has narrowed the opportunities for cross-subsidy. However, narrowing of those opportunities is not tantamount to their elimination.

50. First, the price cap regime is still far from universal. The FCC's price cap rules do not apply to any intrastate services, although some states have adopted some form of price cap regulation. Moreover, the selection of the necessary prices for unbundled services (including the pricing of access under the terms of the parity principle) itself provides incentives for misallocations.

51. Second, even under the purest rate cap scheme, political realities can be relied upon to prevent the regulator from ignoring rate of return altogether. Whatever vows the regulator may take to avoid interference with the magnitudes of the price caps, such a self-denying ordinance will be breached if the regulated firm actually earns returns patently beyond the competitive level, or if, on the other hand, persistently inadequate returns threaten unacceptable deterioration in service quality or even the existence of the firm itself. This means that in practice rate of return considerations can be expected to reenter, as they have in many other countries such as the U.K. and Argentina, by the back door, and bring with them, in attenuated form, precisely the sort of opportunities for cross-subsidy that the regulated firm had before.

52. With the coverage of price cap rules far from universal, with their future far from certain, and with those rules universally supplemented explicitly or implicitly by a rate of return standard, the notion that all opportunities for cross-subsidy have been foreclosed to Southwestern Bell now and forever, and that one can unconcernedly permit entry into the interLATA markets, makes sense only if one is prepared to ignore reality, particularly the price cap formula actually implemented in Oklahoma. Freedom of BOC entry into these markets is, indeed, a goal to be worked toward, but only with a complete set of appropriate safeguards in place, and only after effective tests of competitiveness in the pertinent markets have been passed.